

CLAIMS

What is claimed is:

1. A liquid crystal device comprising:
a liquid crystal arranged between first and second substrates;
a reflective conductive film formed on the first substrate;
a light-transmitting metal oxide film laminated on the reflective conductive film so that the edge of the metal oxide film is in contact with the first substrate; and
an illumination means for irradiating the liquid crystal with light from outside the first substrate.
2. A liquid crystal device comprising:
a liquid crystal arranged between first and second substrates;
an underlying film provided on the first substrate;
a reflective conductive film formed on the underlying film;
a light-transmitting metal oxide film laminated on the reflective conductive film so that the edge of the metal oxide film is in contact with the underlying film; and
an illumination means for irradiating the liquid crystal with light from outside the first substrate.
3. A liquid crystal device according to Claim 1, wherein the edge in contact with the first substrate constitutes a light-transmitting portion in one display dot in a transfective system liquid crystal display.

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4. A liquid crystal device according to Claim 2, wherein the edge in contact with the underlying film constitutes a light-transmitting portion in one display dot in a transfective system liquid crystal display.

5. A liquid crystal device according to Claim 2, wherein the underlying film contains a metal oxide.

6. A liquid crystal device according to Claim 1, further comprising a reflecting layer provided on the reflective conductive film, for reflecting blue component light.

7. A liquid crystal device according to Claim 1, wherein the reflective conductive film and the metal oxide film form a first electrode for applying a voltage to the liquid crystal.

8. A liquid crystal device according to Claim 7, further comprising a second electrode formed on the second substrate opposite to the first electrode, and a color layer provided corresponding to the crossing regions between the first and second electrodes.

9. A liquid crystal device according to Claim 7, wherein the first electrode comprises a stripe electrode constituting a simple matrix system liquid crystal device.

10. A liquid crystal device according to Claim 7, wherein the first electrode is a dot electrode constituting an active matrix system liquid crystal device.

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11. A liquid crystal device according to Claim 7, further comprising a second electrode formed on the second substrate opposite to the first electrode, wiring connected to the first electrode, and wiring connected to the second electrode, wherein a display area comprises a collection of the crossing regions of the first and second electrodes, the wiring connected to the first electrode and the wiring connected to the second electrode are present outside the display area, and at least one of the wirings comprises a metal oxide to eliminate the reflective conductive film.

12. A liquid crystal device according to Claim 1, wherein the reflective conductive film is made of a single silver material or an alloy containing silver.

13. A liquid crystal device according to Claim 1, wherein the metal oxide film is made of ITO (Indium Tin Oxide).

14. A liquid crystal device according to Claim 1, wherein the area of the edge in contact with the first substrate is 10 to 70%, preferably 30 to 50%, of the area of one display dot to which the edge belongs.

15. A liquid crystal device according to Claim 2, wherein the area of the edge in contact with the underlying film is 10 to 70% of the area of one display dot to which the edge belongs.

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16. A method of manufacturing a liquid crystal device comprising a liquid crystal arranged between first and second substrates, the method comprising:

the step of forming a reflective conductive film on the first substrate;

the step of forming a light-transmitting metal oxide film on the reflective conductive film so that the edge of the metal oxide film contacts the first substrate; and

the step of providing an illumination means outside the first substrate, for light irradiation.

17. A method of manufacturing a liquid crystal device comprising a liquid crystal arranged between first and second substrates, the method comprising:

the step of forming an underlying film on the first substrate;

the step of forming a reflective conductive film on the underlying film;

the step of forming a light-transmitting metal oxide film on the reflective conductive film so that the edge of the metal oxide film contacts the underlying film; and

the step of providing an illumination means outside the first substrate, for light irradiation.

18. An electronic apparatus comprising a liquid crystal device according to Claim

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